Remarks/Arguments

The present amendment provides amendments to claims 32-34, 40, 45, 46 and 97; and replacement drawings. Claims 32, 33, 45 and 46 were amended to express the provided generic structure using a format indicating different variables by X, and then providing the possible X substituents. Claims 33, 34, 40 and 97 were amended to clarify that the plurality of peptides comprises different peptides, wherein the different peptides each comprise a different amino acid sequence within the generic structure of SEQ ID NO: 39. The amendments to the claims are intended to clarify the claims and not to narrow claims.

35 USC § 112, First Paragraph (New Matter)

Claims 33, 35-38, 40, 43-44 and 97-98 stand rejected as allegedly containing subject matter not sufficiently described in the specification. The rejection refers to prior amendments made to claims 33, 35, and 40; and indicates that the specification does not teach compositions containing mixtures of peptides or whether a single or different types of excipient(s) will be pharmaceutically acceptable with the different (108) peptide sequences. The rejection is respectfully traversed.

Claim 33 was amended to more clearly indicate that the plurality of peptides comprises different peptides, wherein the different peptides comprise a different amino acid sequence within the SEQ ID NO: 39 genus. Support for claim 33 can be found, for example, in the substitute specification on pages 22, line 10 to page 23, line 2.

Claim 35 provides different preferred peptides that are present in the mixture. Support for claim 35 can be found, for example, in the substitute specification on pages 23, lines 4-9 and in original claim 35.

Claim 40 was amended to more clearly indicate that each of the different peptides provided by claim 33 consist of said sequence and a hepatitis C virus E2NS1 protein with the peptide in the HVR1 position. Support for the amendment can be found, for example, in the substitute specification on page 19, line 20 to page 20, line 2.

The application provides guidance on the use of individual peptides and a mixture of different peptides in a composition, including a pharmaceutical composition. Such guidance is provided, for example, in the substitute specification on pages 41 to 45. Pharmaceutical

compositions of peptides and mixtures of peptides are referred to, for example, in the substitute specification on page 45, lines 12-22.

35 USC § 112, Second Paragraph (Definiteness)

Claims 32-38, 40, 43-46 and 97-99 stand rejected as allegedly indefinite. The office action indicates that the differences between claims 32 and 33 are not clear; suggests claiming the peptides using the full formula of the peptide sequence; and that claims 45 and 46 are confusing and appear to be contradictory with the specification and preceding claims. The rejection is respectfully traversed.

Claims 32, 33, 45 and 45 were amended to describe the generic amino acid sequence using a format along the lines suggested by the examiner. The employed format indicates different positions where the amino acid is selected from a group of specified amino acids. Claim 32 is directed to a mixture of 108 different peptides, where each of the peptide comprises a different amino acid sequence within the SEQ ID NO: 39 genus. Claim 33 is directed to a composition comprising a plurality of different peptides, wherein the different peptides comprises an amino acid sequence within the SEQ ID NO: 39 genus.

Some of the apparent confusion concerning claims 45 and 46 may be due to the original restriction requirement providing a group characterized as peptide mixtures, but containing both mixture and peptide claims, followed by subsequent responses and office actions. The restriction requirement is discussed below.

The application provides for different aspects directed to individual peptides and mixtures. (See, for example, the substitute specification at page 22, lines 14-18.) Claim 45 is directed to a peptide falling with the SEQ ID NO: 39 genus. The SEQ ID NO: 39 genus generically covers different peptides. Claim 45 is a claim to a peptide itself that need not be part of a mixture.

Claim 46 is directed to a genus of Formula I (SEQ ID NO: 1). The SEQ ID NO: 39 genus is a species (or subgenus) of SEQ ID NO: 1.

35 USC § 102 (anticipation) and 103 (obviousness)

Based on Puntoriero et al (The EMBO Journal Vol. 17, No. 13, page 3521) claims 46 and 99 stand rejected as allegedly anticipated and claims 32-38, 40, 43-45, 97 and 98 stand rejected as allegedly obviousness. These rejections are respectfully traversed.

The present application claims priority under 35 USC § 119 to a foreign application filed prior to Puntoriero et al. The priority application was filed May 19, 1998. Enclosed is the table of contents for Puntoriero et al. EMBO Journal Vol. 17, No. 13, providing a publication date of July 1998.

Restriction Requirement

Applicants request clarification or confirmation of the status of the original restriction requirement. It is applicants understanding that claims 32-38, 40, 43-46 and 97-99 are under examination as part of the elected Group II. Group II contains claims directed to a mixture of polypeptides (claim 32-38, 40, 43 and 44) and polypeptides falling within Formula II (claim 45). In addition, claim 46 providing a generic claim that encompasses the elected species (Formula II) is under examination. Claims 47-57 are currently withdrawn from prosecution as non-elected species within Group II.

Applicants understanding is based on the original restriction requirement provided June 4, 2001 and subsequent actions. The original restriction requirement included Group II claims 32-57, which was characterized as drawn to a mixture of peptides obtainable from a library, and the following different species under Group II: (A) Formula II or in composition form; (B) fusion composition; and (C) pharmaceutical composition. Applicants elected Group II, species A, and indicated that then pending claims 32-38 read on the elected species. (Response dated July 5, 2001.)

Subsequently in an office action dated May 3, 2002, claims 46-57 and subject matter not drawn to Formula II were indicated to be withdrawn from prosecution. The remaining claims under examination (claims 32-45) included both mixture claims and polypeptide claims.

In a response dated August 2, 2002, applicants requested that claim 46 also be examined in the present application. Claim 46 is directed to a polypeptide of Formula I, which generically covers the elected species (Formula II).

Accordingly the claims are in condition for allowance. Please charge deposit account 13-2755 for fees due in connection with this amendment. If any time extensions are needed for the timely filing of the present amendment, applicants petition for such extensions and authorize the charging of deposit account 13-2755 for the appropriate fees.

Respectfully submitted,

By _____

Sheldon O. Heber
Reg. No. 38,179
Attorney for Applicant

Merck & Co., Inc.
P.O. Box 2000
Rahway, New Jersey 07065-0907
(732) 594-1958

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Cover. Evidence for RNA-based life on Mars? This picture was obtained in 1996 by the BARGAIN (Bay Area Research Group on Alien Invaders) whose members include Guillaume Chanfreau (now at the CNRS-Institut Pasteur, Paris), and Cathy Collins. Kent Duncan, Amy Kistler and Maki Inada (graduates of the University of California). Shown is an autoradiogram of glow in the dark aliens discovered in the Parnassus Heights area of San Francisco. Soon after autoradiography the specimens were accidentally destroyed, eliminating any hope of drawing further conclusions regarding their origin and the composition of genetic material.